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Technology Center 2600

AMENDMENTS TO THE CLAIMS:

1 1. (Original) A network for transporting data from an originating port to a destination port
2 comprising:

3 at least one controller, each controller including:

4 means for receiving data in time division multiplex (TDM) format from an
5 originating port, and

6 means for mapping the TDM data into fixed-length packets, wherein the TDM
7 data is written into a predetermined packet slot permanently assigned to the originating port;

8 and

9 a switching element connected to the one or more controllers including:

10 means for receiving the packets from the one or more controllers, and

11 means for separately switching the data in each packet slot received from the
12 controllers into a packet slot preassigned to the destination port.

1 2. (Original) The network according to claim 1, further comprising a call server connected
2 to the switching element, including:

3 means for determining the destination port associated with the data in each incoming
4 packet slot based on a message transmitted from the controller to the switching element to the call
5 server.

1 3. (Original) The network according to claim 2, wherein the call server further comprises
2 means for instructing the switching elements to switch the data in the packet slot into the packet slot
3 corresponding to the destination port.

1 4. (Original) A non-blocking network for transporting packet data from an originating port
2 to a destination port, including:

3 at least one controller connected to plural ports, wherein each controller includes an
4 interface to receive time division multiplex (TDM) data from an originating port and a state machine
5 to write the TDM data into a packet slot assigned to the originating port; and

6 a switching element including an interface to receive packet data from the one or
7 more controllers and a switching circuit to switch the TDM data in the packet slot assigned to the
8 originating port into an outgoing packet slot assigned to the destination port.

1 5. (Original) A network according to claim 4, further comprising a call server to determine
2 the identity of the destination port.

1 6. (Original) A network according to claim 5, wherein the call server further includes a look-
2 up table to identify the packet slot corresponding to the destination port.

1 7. (Original) A network according to claim 6, wherein the call server further includes an
2 input/output controller to send a message to the switching element instructing the switching element
3 to switch the TDM data in the packet slot assigned to the originating port into the packet slot
4 assigned to the destination port.

1 8. (Original) A node controller connected to plural access controllers, including:
2 means for receiving packet data from the plural access controllers, and
3 means for separately switching each slot in the packet data received from the plural
4 access controllers into a packet slot preassigned to the destination port.

c/ 1 9. (Original) A switching element connected to one or more controllers and a call server,
2 including:
3 an interface to receive incoming ATM cells from the one or more controllers;
4 a microprocessor to receive octet switching directions from the call server on how to
5 individually switch each octet in the incoming ATM cells into outgoing ATM cells; and
6 a time switch processor to switch each octet in the incoming ATM cells into outgoing
7 ATM cells in response to the octet switching directions.

1 10. (Original) A switching element according to claim 9, further comprising:

2 a multiplexer to multiplex the incoming ATM cells into a single stream of ATM cells;

3 and

4 a de-multiplexer to de-multiplex the outgoing ATM cells into plural streams of ATM

5 cells.

1 11. (Original) A switching element according to claim 9, wherein the microprocessor further

2 includes an address generator to generate read addresses in response to the octet switching directions

3 from the call server.

1 12. (Original) A switching element according to claim 9, the time switch processor further

2 comprising:

3 a buffer; and

4 a time switch controller to sequentially write each octet in the incoming ATM cells

5 into the buffer and for reading the octets from the buffer using read addresses supplied by the

6 microprocessor.

1 13. (Original) A method for establishing a switching path between an originating port and
2 a destination port in a network having a call server and plural controllers, the method comprising the
3 steps of:

4 receiving from the plural controllers packets in which data from the originating port
5 is located in a particular packet slot assigned to the originating port;

6 receiving a first message from the call server;

7 switching the data in the packet slot assigned to the originating port into a packet slot
8 assigned to the destination port in response to the first message from the call server.

1 14. (Original) The method of claim 13, further comprising the step of:

2 continuing to switch the data in the packet slot assigned to the originating port into
3 the packet slot assigned to the destination port until receipt of a second message from the call server.
